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In re Application of

*Bittleston*

Application Number

*09/284.030*

Filed

*4-6-99*

Paper No. *#11*

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*240-731-3449*

Telephone Number

*June 20, 2005*

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(12) **United States Patent**  
**Bittleston**

(10) **Patent No.:** **US 6,671,223 B2**  
(45) **Date of Patent:** **Dec. 30, 2003**

(54) **CONTROL DEVICES FOR CONTROLLING THE POSITION OF A MARINE SEISMIC STREAMER**

(75) **Inventor:** **Simon Hastings Bittleston, Slependen (NO)**

(73) **Assignee:** **WesternGeco, L.L.C., Houston, TX (US)**

(\*) **Notice:** Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 1 day.

(21) **Appl. No.:** **09/893,234**

(22) **Filed:** **Jun. 26, 2001**

(65) **Prior Publication Data**

US 2002/0126575 A1 Sep. 12, 2002

#### Related U.S. Application Data

(63) Continuation of application No. 09/284,030, filed on Apr. 6, 1999, now abandoned.

(30) **Foreign Application Priority Data**

Dec. 20, 1996 (GB) ..... 9626442

(51) **Int. Cl.<sup>7</sup>** ..... **B63G 8/14**

(52) **U.S. Cl.** ..... **367/19; 114/245**

(58) **Field of Search** ..... **367/19, 18; 114/244**

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(57) **ABSTRACT**

A control device or "bird" for controlling the position of a marine seismic streamer is provided with an elongate, partly flexible body which is designed to be electrically and mechanically connected in series with a streamer. In its preferred form, the bird has two opposed wings which are independently controllable in order to control the streamer's lateral position as well as its depth.

**29 Claims, 2 Drawing Sheets**

